

REMARKS

Summary

Claims 1, 9, 16, and 23 have been amended to further particularize the invention.

Claims 7-9 and 13-15 have been amended to correct a previously undetected formality and not to overcome any rejections.

The amendments do not introduce new matter.

Claim 24 has been canceled.

Therefore, Claims 1-23, and 25-26 remain pending.

Claims 1-26 stand rejected under 103(a) as obvious to either U.S. Patent Application No. 2004/016335 by Hampel, ("Hampel"), or U.S. Patent No. 6,612,084 issued to Rapisarda et al, ("Rapisarda").

Rejection under 103(a)

Claim 1 stands rejected under 35 U.S.C. 103(a) as being unpatentable over either Hampel or Rapisarda. In response, notwithstanding Applicant's disagreement with the Examiner's analysis, in the interest of expeditiously bringing prosecution to an end, Applicant has amended Claim 1 to now recite

An air grate comprising:

one or more pieces of one or more materials adapted to partially cover no more than 40% of a spanned area, allowing air to flow through a plurality of openings disposed in the uncovered portion of the spanned area to meet a semiconductor device manufacturing air flow requirement, where each of the openings is sufficiently small to meet a semiconductor device manufacturing fall through object size limitation, and where the one or more materials are further adapted to meet a semiconductor device manufacturing spill protection requirement.

Accordingly, claim 1 now recites a novel structural arrangement for an air grate that can simultaneously meet at least three design requirements that are conflicting at least at times, i.e. an air flow requirement that generally calls for more/larger openings, a debris fall through limitation that generally calls for less/smaller openings, and a spill protection requirement that generally calls for lesser/smaller openings. Applicants respectfully submit, for at least the reasons set forth below, the structural arrangement is non-obvious in view of Hampel and Rapisarda, individually or combined.

§103 requires the invention be viewed as whole. When doing so, as stated earlier, the structural arrangement claimed stands for a novel arrangement that can simultaneously meet at least three requirements that are conflicting at times.

Hampel teaches a grate that meets certain ventilation and debris fall through requirements. In Hampel's case, the requirements are complementary, as opposed to conflicting, as both, the desire to have increased ventilation and the desire to have increased debris fall through, call for increased amount of openings. Accordingly, Hampel does not teach or suggest structural arrangement for an air grate that can simultaneously meet at least three requirements that are conflicting at times. Moreover, Hampel actually teaches away from the claimed invention. Specifically, Hampel teaches that holes in the grate are to encourage liquids to drop through the grate (See at least page 1, paragraph 12), while amended claim 1 includes the simultaneous meeting of a spill protection requirement (which inherently requires reduction of liquid passing through the grate).

Rapisarda teaches an air grate for a clean room to provide enough airflow, while meeting certain weight requirements. Thus, Rapisarda merely teaches an air grate that

simultaneously meets two requirements that may be conflicting. Accordingly, Rapisarda does not teach or suggest an air grate that simultaneously meet at least three requirements that are conflicting at times. Specifically, Rapisarda failed to teach or suggest an air grate with structural arrangement that provides sufficient airflow, while limiting solid as well as liquid falling through.

Therefore, Claim 1 is non-obvious and patentable over Rapisarda. Withdrawal of the rejection of Claim 1 for obviousness is requested.

Claims 9, 16, and 23 contain substantially the same limitations as Claim 1. Thus, for at least the same reasons, Claims 9, 16, and 23 are not obvious and patentable over either Hampel or Rapisarda.

Rejection of Claim 24 has been rendered moot by its cancellation.

Claims 2-8, 10-15, 17-22, and 25-26 are dependent upon Claims 1, 9, 16, and 23 respectively and are therefore patentable for at least the above-stated reasons. Applicant respectfully requests that the rejections against Claims 2-8, 10-15, 17-22, and 25-26 be withdrawn.

Conclusion

In view of the foregoing, Applicant respectfully submits that Claims 1-23, 25-26 are in condition for allowance. Entry of the foregoing remarks is requested and a Notice of Allowance is earnestly solicited. Please contact the undersigned at (206) 407-1504 regarding any questions or concerns associated with the present matter.

Respectfully submitted,
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